

**15-DAY EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
OFFICE OF THE STATE FIRE MARSHAL

REGARDING PROPOSED CHANGES TO
2016 CALIFORNIA FIRE CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 9**

(The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific. (PART 1 – ADMINISTRATIVE CODE)

Legend for Express Terms:

- 1. Existing California amendment:** California 45-Day language will appear in underlined and ~~strikeout~~.
- 2. Amended, or repealed language:** Amended or repealed 15-Day language will appear in *italics and double underline* and ~~double strikeout~~.
- 3. Rationale:** The justification for the change is shown after each section or series of related changes.
- 4. Notation:** Authority and reference citations are provided at the end of each chapter.

EXPRESS TERMS

[Item 8. Photovoltaic systems modifications]

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605.11.1.2.7 Emergency escape and rescue opening *Panels and modules installed on Group R-3 buildings shall not be placed on the portion of a roof that is below an emergency escape and rescue opening. A 36 inch (914 mm) wide pathway shall be provided to the emergency escape and rescue opening.*

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Rationale for revision: The proposal for Item 8 is to incorporate the new changes in the 2018 International Fire Code (IFC) and International Residential Building Code early into the California Fire and Residential Codes. This is based on the current need in California. The

proposal is based on the IFC proposal F85-16 that was approved. A public comment pointed-out that the companion IFC proposal F87-16 that added one section to the regulations for protection of the emergency escape and rescue opening was also approved and incorporated into the IFC and IRBC codes. This revision is to incorporate that change and make the regulations consistent with the IFC.

[Item 10. Carbon dioxide enrichment systems]

[Chapter 1]

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~~**105.6.4.1 Carbon dioxide enrichment systems.** An operational permit is required for carbon dioxide enrichment systems having more than 874 cu. ft. of (100 pounds) of carbon dioxide.~~

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TABLE 105.6.9

PERMIT AMOUNTS FOR COMPRESSED GASES

TYPE OF GAS	AMOUNT (cubic feet at NTP)
Carbon dioxide <u>used in carbon dioxide</u> enrichment systems	8754 <u>874</u> (100 lbs)
Corrosive	<u>200</u>
Flammable (except cryogenic fluids and liquefied petroleum gases)	<u>200</u>
Highly toxic	Any Amount
Inert and simple asphyxiant ^a	6,000
Oxidizing (including oxygen)	504
Pyrophoric	Any Amount
Toxic	Any Amount

For SI: 1 cubic foot = 0.02832 m³.

a. For carbon dioxide used in beverage dispensing applications, see Section 105.6.4.

[Chapter 9]

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~~**908.8 Carbon dioxide enrichment systems.** A gas detection system shall be provided in rooms and indoor areas in which carbon dioxide enrichment processes are located in~~

~~accordance with Section 5308.3.4.~~

[Chapter 53]

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SECTION 5307
CARBON DIOXIDE (CO₂) SYSTEMS USED IN BEVERAGE DISPENSING APPLICATIONS
COMPRESSED GASES NOT OTHERWISE REGULATED

~~**5307.1 General.** Carbon dioxide systems with more than 100 pounds (45.5 kg) of carbon dioxide used in beverage dispensing applications shall comply with Sections 5307.2 through 5307.5.2.~~

5307.1 General. Compressed gases in storage or use not regulated by the material-specific provisions of Chapters 6, 54, 55 and 60 through 67, including asphyxiant, irritant and radioactive gases, shall comply with this section in addition to other requirements of this chapter. Areas containing insulated liquid carbon dioxide systems used in beverage dispensing applications shall comply with Section 5307.3. Carbon dioxide enrichment systems shall comply with Section 5307.4. Areas other than those covered by Sections 5307.3 or 5307.4 shall comply with Section 5307.2.

~~**5308.3 5307.4 Carbon dioxide enrichment systems.** The design, installation and maintenance of carbon dioxide enrichment systems with more than 100 pounds (874 cu. feet or 45.4 kg) of carbon dioxide, ~~or~~ and carbon dioxide enrichment systems with any quantity of carbon dioxide ~~with~~ having a remote fill connections connection, shall comply with Sections ~~5308.3.1 5307.4.1 through 5308.3.8 5307.4.8.~~~~

~~**5308.3.1 Permits.** Permits shall be required as set forth in Section 105.6.5.~~

~~**5308.3.2 5307.4.1 Documentation.**~~ [No change to text]

~~**5308.3.3 5307.4.2 Equipment.**~~ [No change to text]

~~**5308.3.4 5307.4.3 Gas detection system.** A ~~continuous~~ gas detection system shall be provided in the room or indoor area in which the carbon dioxide enrichment process is located, in the room or indoor area in which the container systems are located, and in other areas where ~~the heavier than air gas can congregate~~ carbon dioxide is expected to accumulate. Carbon dioxide sensors shall be provided within 12 inches (305 mm) of the floor in the area where the gas is ~~most likely~~ expected to accumulate or leaks are most likely to occur. The system shall be designed to detect and notify at a low level alarm and high level alarm as follows:~~

- ~~1. The threshold for activation of the low level alarm shall not exceed a carbon dioxide concentration of 5,000 ppm (9,000 mg/m³) Time Weighted Average (TWA) over 8 hours.~~
- ~~2. The threshold for activation of the high level alarm shall not exceed a carbon dioxide concentration of 30,000 ppm (54,000 mg/m³). When carbon dioxide is detected at the high level alarm, the system shall activate an audible and visible alarm in an approved location.~~

1. Activate a low-level alarm upon detection of a carbon dioxide concentration of 5,000 ppm (9,000 mg/m3).
2. Activate a high-level alarm upon detection of a carbon dioxide concentration of 30,000 ppm (54,000 mg/m3).

5308.3.4.1 5307.4.3.1 System Activation. [No change to text]

5308.3.5 5307.4.4 Pressurization and ventilation. [No change to text]

5308.3.6 5307.4.5 Signage. [No change to text]

5308.3.7 5307.4.6 Seismic and structural design. [No change to text]

5308.3.8 5307.4.7 Container refilling. Carbon dioxide containers located indoors shall not be refilled indoors unless filled from a remote fill connection is provided located outdoors.

5307.5 Ventilation. Indoor storage and use areas and storage buildings shall be provided with ventilation in accordance with the requirements of Section 5004.3. Where mechanical ventilation is provided, the systems shall be operational during such time as the building or space is occupied.

Exception: A gas detection system complying with Section 5307.2.1 shall be permitted in lieu of mechanical ventilation.

Rationale for revision: The International Code Council modified the text for coordination and editorial reasons. There is no change in regulatory effect. The intent of the entire proposal is to bring in the regulations that have been approved for the 2018 International Fire Code early, based on California's current need. This change matches the ICC revised text.

Notation

Authority: Health and Safety Code Sections 13108, 13108.5, 13114, 13143, 13146, 13210, 13211, 18949.2

Reference(s): Health and Safety Code Sections 13143, 13195, 18949.2

[Item 12. Gas detection systems]

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916.5 Emergency and standby power. ~~Where standby or emergency power is not required elsewhere by this code, standby or emergency power shall be provided or the gas detection system shall initiate a trouble signal at an approved location if the power supply is interrupted.~~

916.6 Sensor locations. ~~Where a specific location for sensors is not specified elsewhere by this code, sensors shall be installed in approved locations where leaking~~

gases are expected to accumulate.

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Rationale for revision: The International Code Council modified the text for coordination and editorial reasons. There is no change in regulatory effect. The intent of the entire proposal is to bring in the regulations that have been approved for the 2018 International Fire Code early, based on California's current need. This change matches the ICC revised text.